Meeting of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction

31 July 2018

English only

2018 Meeting
Geneva, 4-7 December 2018

Meeting of Experts on Cooperation and Assistance, with a Particular Focus on Strengthening Cooperation and Assistance under Article X
Geneva, 7-8 August 2018
Item 9 of the provisional agenda
Promotion of capacity building, through international cooperation, in biosafety and biosecurity and for detecting, reporting and responding to outbreaks of infectious disease or biological weapons attacks, including in the areas of preparedness, response, and crisis management and mitigation

Outcome of the International Workshop on Cooperation and Assistance under Article X

Submitted by Norway

1. On 22 June 2018, the government of Norway and the Biological Weapons Convention Implementation Support Unit co-organized a workshop entitled "International Workshop on Cooperation and Assistance under Article X of the Biological Weapons Convention". Held in Geneva, Switzerland, the workshop convened 62 participants from 34 States Parties, five regional or international organizations, and six non-governmental organizations or academic institutions. The government of Norway provided funding for the venue as well as travel and accommodation for sponsored speakers.

2. This workshop enabled positive and constructive discussions in advance of the 2018 Meetings of Experts 1, on Cooperation and Assistance, with a Particular Focus on Strengthening Cooperation and Assistance under Article X, which will take place on 7-8 August 2018 in Geneva.

3. Norway believes that this workshop was useful in laying the groundwork for a positive and constructive discussion at the Meeting of Experts 1, including possible outcome. The two co-organizers of this workshop prepared a Workshop Summary, which is annexed to this working paper.

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Annex I

International Workshop On Cooperation and Assistance under Article X of the Biological Weapons Convention

Workshop Summary

I. Introduction

1. The government of Norway and the Biological Weapons Convention Implementation Support Unit (BWC ISU) co-organized a workshop entitled "International Workshop on Cooperation and Assistance under Article X of the Biological Weapons Convention" in Geneva, Switzerland on 22 June 2018. Over 60 participants were registered for the event, representing States Parties, international organizations, non-governmental organizations and academic institutions. Workshop discussions were divided into five working sessions. Selected experts were invited to give a presentation on the subject matter of each session, followed by a free exchange of views under the guidance of the moderator. The workshop provided an opportunity for exchanging views and discussing ideas and proposals related to Cooperation and Assistance under Article X of the Convention in advance of the 2018 Meetings of Experts, more specifically the Meeting of Experts 1 (MX 1).

Session I: Assistance and cooperation under the BWC

2. In the opening session, Ms. Trude Skjerve Johnson, Senior Adviser, Norwegian Ministry of Foreign Affairs, highlighted the BWC as one core pillar of disarmament and non-proliferation of weapons of mass destruction. Effective implementation of the Convention, including art. X, is therefore key. Norway has long emphasized that a well-functioning public health system is the best defense against any possible outbreak of disease, intentional or not. State Parties may need assistance in strengthening national capacities in fulfilling their international commitment and exploring effective ways of providing such assistance and cooperation remains a priority, stressed Ms. Skjerve.

3. Working session, I was moderated by Ms. Hana Cervenka, First Secretary, Permanent Mission of Norway in Geneva.

"The evolution of Article X of the BWC", by Mr. James Revill, Research Fellow, University of Sussex.

4. The presentation gave a historical overview of the development and implementation of Article X of the BWC. It argued that Article X received little attention in the early 1970s, but has since then become a more divisive issue with many states maintaining a principled stand on the importance of Article X.

5. The presentation argued that the BWC was not going to progress in the biotech century without more attention to international cooperation. However, it is also necessary to recognize that many cooperative activities are also taking place outside the BWC, including ones where the private sector plays an important role. Taking into account the recipient states' infrastructure and capacity to absorb knowledge and equipment, as well as finding reasonably inexpensive ways of implementing art. X would also be important.

6. Four alternative ideas for moving Article X forward were presented as food for thought:

(a) Article X related reports and report analysis;

(b) Mandating and resourcing the ISU to look at article X, including through the appointment of an international cooperation officer;

(c) Agreement to hold regional science and technology (S&T) dialogues focused on S&T responses to regional BWC-related issues and local problems;

(d) An open-ended working group to look at international cooperation.

"The Biological Weapons Convention and Article X implementation: An introductory overview" by Mr. Daniel Feakes, Chief of the BWC Implementation Support Unit.

7. Mr. Feakes presented the BWC Assistance and Cooperation Database, which was mandated by the Seventh Review Conference to facilitate requests for and offers of exchange of assistance and cooperation among States Parties. The BWC Sponsorship Programme, established by the Seventh Review Conference to support and increase the participation of developing States Parties in the meetings of the Convention is another important mechanism that might help spur cooperation and assistance.

Discussion

8. Many participants expressed their hopes that this workshop could help delegates at the forthcoming MX1 identify issues where common understanding, effective action and possible outcomes could be considered and developed.

9. Regarding the BWC Sponsorship Programme, participants highlighted the role of the programme in empowering networks of experts and discussed the idea of the ISU providing an analysis on experts that have been sponsored since the Seventh Review Conference in order to facilitate this.

10. Participants also suggested that BWC States Parties could draw lessons learned on cooperation and assistance from other regimes and sectors, such as the OPCW, the OECD peer review development assistance mechanisms, the IAP panel etc.

Session II: Building capacities at the national, regional and global level

11. Working session II was moderated by Ms. Ngoc Phuong van der Blij, Political Affairs Officer, BWC ISU.

"Harnessing frontier technologies for sustainable development" by Mr. Angel González Sanz, Chief, Science, Technology and ICT Branch, Division on Technology and Logistics, UNCTAD.

12. Mr. Gonzáles Sanz presented the findings in an UNCTAD's 2018 Technology and Innovation Report[1], which finds that harnessing frontier technologies could be transformative in achieving the Sustainable Development Goals (SDGs). Such transformation requires addressing persistent technological and innovation gaps among developed and developing countries.

[1] http://unctad.org/en/PublicationsLibrary/tir2018_en.pdf

13. Several frontier technologies show the greatest potential to enable the achievement of the SDGs. Big data analysis can help to address critical global issues, create scientific breakthroughs, advance human health and improve decision-making. The Internet of Things allows connected objects and machines to be monitored and managed. These technologies have applications in healthcare, agriculture, energy and water management and in monitoring development indicators to assess progress towards the SDGs. Artificial intelligence, particularly combined with robotics, could transform production and business, especially in manufacturing. So too could 3D printing, which can allow faster and cheaper low-volume production and rapid iterative prototyping of new products. Biotechnology allows gene editing, making possible the personalized treatments and genetic modification of plants and animals. Nanotechnology is used in water purification, battery storage, precise management of agrochemicals, and in the delivery of medication. Renewable energy technologies could provide electricity in rural areas far from the grid systems, while drones could revolutionize the delivery of supplies and replace humans in dangerous tasks. Small-scale satellites will soon be affordable for more developing countries, businesses and universities.

14. Achieving the ambitious 2030 Agenda for Sustainable Development requires the full use of all available tools. Given the central role of innovation in the structural economic transformation, technology will be indispensable for sustainable development. The changes that frontier technology may introduce in human activity could create unprecedented divides and should be accompanies by an ethical imperative to ensure that no one is left behind. The LDCs, in particular, should receive international support to build the capabilities and create the enabling environment necessary for frontier technologies to deliver on their promise.

Role and Importance of education and awareness in the implementation of the Biological Weapons Convention: Moroccan Experience" by Dr. Fatima Lamchouri, Professor at the Polydisciplinary Faculty of Taza, Sidi Mohamed Ben Abdellah University of Fez, Morocco

15. The rapid expansion and application of scientific knowledge owes much to a research culture in which knowledge and biological materials are shared by scientists. As the use of hazardous biological and chemical agents becomes more common in laboratories, hospitals or the pharmaceutical industry, biological research may inadvertently contribute to the development of new weapons. The potential misuse of research results (called "dual-use") is a danger to international security. This raises important questions about the responsibilities of scientists, research institutions, the scientific community, publishers and policy makers. Responsible actors at each of these levels should aim to promote the progress of science to the extent that these advances benefit humanity; but they should aim to avoid results where developments end up causing more harm than good. They should also organize and conduct educational and awareness-raising activities, particularly on responsible uses of science. in relation to Article X of the Convention.

16. It is also necessary to educate and sensitize the academic and scientific community in State Parties on the provisions of the BWC. This could also constitute components of the prevention and management of biological risks and threats. Practical means could include introduction into university curricula modules on biosafety, biosecurity, bioethics, dual use in the life sciences, responsible science, as well as the organization of conferences, workshops, thematic schools for the benefit of students, teachers and administrative and technical staff of laboratories of public or private establishments that handle biological material.

17. The Moroccan experience in this field may be relevant to other countries in development. The introduction of biosafety training is a component of the prevention and management of risks in laboratories. This helps to define a framework in which biohazardous substances can be managed responsibly, while continuing to provide service,

education and research, and to implement the Convention. Presentations on bioethics to students also may help solve the ethical problems raised by the dilemma of dual use in the life sciences. The ultimate goal is to develop in the students a critical spirit allowing them to identify the ethical issues of scientific and technological progress in the field of life sciences, in order to integrate this ethical reflection into their professional practice.

18. The presentation ended with ideas of having the ISU trained in Education and Outreach practices, as part of a "train-the trainer" initiative.

"Developing human resources in biological sciences and technology related to implementation of the BWC." By Dr. Jean Pascal Zanders, Chairman, Advisory Board on Education and Outreach, OPCW.

19. The Advisory Board on Education and Outreach (ABEO) started functioning as a subsidiary body of the Organisation for the Prohibition of Chemical Weapons (OPCW) in 2016. It published its substantive report on how education and outreach may assist the OPCW in February 2018. Close interaction with stakeholders, including industry, the scientific community, academia, civil society and the media, is seen as important to engage these constituencies in supporting and promoting the norm against chemical weapons. Recommendations by the ABEO focus on the education and outreach roles of staff members of the OPCW Technical Secretariat and States Parties to the Chemical Weapons Convention (CWC) and their National Authority in particular. The National Authority, should engage with local stakeholder communities to advance national implementation of the CWC and make stakeholders aware of their individual and collective responsibilities under the treaty on the local level.

20. Translated to the BWC, education and outreach strategies (especially, active learning) could be deployed to make officials in capitals aware of the importance of implementation of the treaty. They should be well informed on how to engage local stakeholders to facilitate the various implementation and reporting obligations. with respect to Article X, education and outreach could help various stakeholders to express their concrete needs, which officials could then translate into concrete requests for international assistance and cooperation, including technology transfers, through the BWC. Such activities could improve communication about national needs between capitals and their delegations in Geneva. Similarly, education and outreach on the local level can help officials in capitals and national stakeholder communities to become part of international networks, as well as raise awareness among those communities of dual-use risks, regulations, norms and (international) obligations.

21. The presentation ended with a recommendation to include offers for education and outreach in the Article X database and ideas for the staff members of the Implementation Support Unit to deploy active learning strategies during activities they organize or participate in.

Discussion

22. During this session, participants were interested in the costs related to the creation and establishment of the ABEO Information about such costs are available on the OPCW website[2].

23. Participants also highlighted the importance of National Contact Points (NCPs), in supporting Education and Outreach activities. Connecting NCPs with relevant national and international networks is very important, according to several participants.

[2] https://www.opcw.org/about-opcw/subsidiary-bodies/advisory-board-on-education-and-outreach/

Session III: International collaboration at the health-security interface

24. Session III was moderated by Ms. Trude Skjerve Johnson, Senior Adviser, Ministry of Foreign Affairs, Norway.

"Promotion of capacity building, through international cooperation, in biosafety and biosecurity to enhance preparedness and response capacities to outbreaks of infectious disease or biological weapons attacks" by Dr. Arne Broch Brantsaeter, Senior Consultant, Norwegian National Unit for CBRNE Medicine, Oslo University Hospital, and Dr. Anna Agnieszka, Norwegian Defence Research Establishment

25. The presentation highlighted biosecurity, biosafety and infection prevention and control measures as important components of medical preparedness and response to outbreaks of infectious diseases. Global health security depends on international cooperation in all these fields. Project 54, funded by the European Union CBRN Risk Mitigation Centres of Excellence Initiative (EU CBRN CoE), is aiming to strengthen the institutional capacity, in particular medical systems, to manage and mitigate the consequences of CBRN incidents in Lebanon, Jordan and Iraq. Establishing National Training Centres in these countries will enable self-sustainable national training for medical and paramedical responders involved in CBRN responses, whether the incident be caused by natural, accidental or intentional release of agents. The Project 54 Consortium consists of a number of organizations with many years of expertise in the preparation and delivery of CBRN training courses and guidance, including Public Health England, Royal United Service Institute, European CBRN Center Sweden, Norwegian Institute of Public Health, Norwegian Defence Research Establishment, Norwegian National Unit for CBRNE Medicine, and Swedish Defence Research Agency (FOI).

26. The speakers noted that Ebola outbreak in West-Africa in 2014-2016 served as a clear reminder of the need for international response and cooperation. Health care workers were infected both in West Africa, in Europe and the US. Appropriate design of high-level isolation units and use of personal protective equipment have been topics of discussion in several international meetings and have resulted in numerous scientific publications and guidance documents. Much has also been learned about medical management of Ebola virus disease, and the establishment of the WHO Emerging Diseases Clinical Assessment and Response Network (EDCARN) is one example of lasting international cooperation in the field of highly infectious diseases. Nordic and European networks for highly-infectious diseases and emerging biological risks have also been formed.

"Building innovative partnerships between public, private, philanthropic and civil organisations to enhance epidemic preparedness" by Ms. Gro Anett Nicolaysen, Resource Mobilisation Lead, Coalition for Epidemic Preparedness Innocation (CEPI)

27. CEPI has the mission to stimulate, finance and coordinate vaccine development and rapid response platforms for future epidemics that are not prioritized through regular market initiatives. The aim is to enhance preparedness, accelerate response, ensure market predictability. It is a coalition that brings together public, private sector, philanthropic, and civil society to tackle emerging infectious diseases. The coalition's activities are coordinated by a Secretariat, headquartered in Norway with support by the Norwegian government, and close support from the other founders - Wellcome Trust, Government of India, Bill & Melinda Gates Foundation, and the World Economic Forum.

28. The presentation highlighted that epidemics are a global challenge that we have yet to outsmart. The challenges are described as follow:

- Dense cities, easy travel and ecological change mean they spread faster and further than ever before. Epidemics don't respect borders or nations

- They cause loss of lives, businesses to close, economies to struggle, and billions of USD are spent trying to contain them.
- Over 10 years the global cost of epidemics could amount to USD 600 billion. Hence, emphasis on preparedness is key
- Vaccines can protect us, however, it is necessary to do more in advance of an outbreak to have them ready in time

"An Innovative Partnership for Pandemic Preparedness" by Ms. Anne Huvos, Manager, World Health Organization (WHO) PIP Framework Secretariat

29. The presentation focused on the Pandemic Influenza Preparedness (PIP) Framework[3], which is an innovative public health instrument that was negotiated by WHO Member States and approved by the 64th World Health Assembly in 2011. It aims to increase public health security by addressing three important issues:

- The rapid, systematic and timely sharing by WHO Member States, of influenza viruses with pandemic potential (IVPP) with the WHO-coordinated Global Influenza Surveillance and Response System (GISRS) – a network of 153 public health laboratories specialised in influenza – so that GISRS may, inter alia, carry out risk assessment and vaccine virus development;
- Strengthening pandemic preparedness capacities, notably surveillance and laboratory skills, in countries where they are weak, so that when a new influenza virus emerges it can rapidly be detected, characterized and shared in order to start the process to develop a vaccine; and
- Establishing mechanisms to ensure greater equity of access to pandemic vaccines and other pandemic influenza response products by all countries regardless of economic or development status.

30. To date, WHO has signed legally binding contracts securing its future access to over 400M doses of pandemic vaccine, 10M antiviral treatment courses, 250 thousand diagnostic kits and 25M syringes. As well, WHO has collected over US$ 142M from manufacturers through the Partnership Contribution. These funds have enabled WHO to support many different types of capacity building activities in 72 countries and to establish a response fund that will be used at the time of the next pandemic to support response activities.

Discussion

31. During this session, participants noted the importance of preparedness as a key element that should be emphasized in national strategy against global epidemics.

Session IV: Challenges and opportunities for international cooperation and assistance

32. Session IV was moderated by Mr. Hermann Alex Lampalzer, Political Affairs Officer, BWC ISU.

[3] For more information on the PIP Framev.ork, visit: http://www.who.int/influenza/pip/en/

"The International Centre for Genetic Engineering and Biotechnology: at the intersection between research and cooperation" by Dr. Alessandro Marcello, Group Leader, Molecular Virology, ICGEB.[4]

33. The International Centre for Genetic Engineering and Biotechnology[5] (ICGEB) is an autonomous intergovernmental organization that counts over 60 Member States and is part of the United Nations Common System. The ICGEB Mandate is to provide a Centre of excellence for research, training and technology transfer to industry in the field of biotechnology and to promote sustainable global development. The ICGEB provides a scientific and educational environment of the highest standard and conducts innovative research in life sciences for the benefit of its Members. It strengthens the research capability of its Members through training, programme funding and advisory services and offers a comprehensive approach to promoting biotechnology internationally. The ICGEB is dedicated to advanced research and training in molecular biology and biotechnology and holds out the prospect of advancing knowledge and applying the latest techniques in the fields of: biomedicine, crop improvement, environmental protection/remediation, energy, biopharmaceuticals and bio-pesticide production. With Components in Trieste-Italy, New Delhi-India and Cape Town-South Africa, the Centre forms an interactive network with affiliated centers in Member States.

"Biotechnology in developing countries" by Prof. Li Yin, Deputy Director General of the international cooperation department of the Chinese Academy of Sciences.

34. Biotechnology is becoming a major impetus behind economic recovery and growth, as well as a point of global competition. This presentation systematically analyzed the biotechnology development status of 141 developing countries from the data obtained from scientific publications and patents documented between 2005-2015. To make the analysis thorough and valuable, 32 specialized disciplinary subjects to subdivide the three main areas of biotechnology, namely medical biotechnology, agricultural biotechnology, and industrial biotechnology were used. The analysis indicated that infectious diseases are still the major threat for developing countries.

35. The second part of this presentation summarized the contribution of the Chinese government and the Chinese Academy of Sciences to the prevention and control of infectious disease. This includes China's contribution in the 2014 West Africa Ebola outbreak, training PhD students and specialized personnel for developing countries, organizing biosafety training workshop etc. To best utilize the positive aspect of biotechnology, the presentation proposed that a biological scientist code of conduct should be considered under BWC.

Session V: Considerations for the way ahead

36. The session was moderated by Mr. Daniel Feakes, Chief BWC ISU.

Ambassador Maria Teresa Almojuela of the Philippines, as Chairperson of the Meeting of Experts 1, shared her vision and considerations for the forthcoming Meeting of Experts on 7 - 8 August 2018.

37. The Chair noted the importance of concrete proposals and encouraged states to submit working papers and organize side events for MX1. She highlighted the need to see

[4] The presentation was delivered via skype due to an unforeseen flight cancellation.

[5] www.icgeb.org

the intersessional programme (ISP) 2018-2019 as a continuum: the discussions in MX 1 will be taken forward in the build up to the 2020 Review Conference.

38. The Chair sees the UN Secretary General's disarmament agenda "Securing our Common Future" as a useful reference for MX1 and highlighted the following elements:

- Institutionalization: the BWC is the least institutionalized among disarmament instruments. Institutionalization of the BWC, particularly Article X implementation, requires robust structures for cooperation, sustainability and predictability, and anchoring the engagement for developing states parties.
- Disarmament and development: The Secretary General's disarmament agenda calls for a strong correlation between disarmament and development. The implementation of Article X provides the opening for States Parties to contribute to the 2030 agenda. The potential for biotechnology to address climate change, pollution, outbreak of diseases, food security challenges etc. is limitless. The BWC States Parties should identify practical activities that are scalable, within BWC mandate, and not repeat what is already being done elsewhere.
- Partnerships: this is a major theme of the UN SG disarmament paper. Under MX 1, there are three topics where discussions on partnerships will be pursued – with and among international organizations, academia and industry. As cited in the example of the CWC education and outreach program, outreach activities are crucial in building a community of experts, scientists and professionals who understand their stakes in the BWC regime, and to develop enabling platforms for cooperation.
- Regional cooperation: one guidance in the disarmament agenda is to reinforce existing cooperation at the global level by aligning them clearly and strongly with regional cooperation mechanisms. Regional mechanisms are often more dynamic, rooted and robust. Sometimes they are more effective in improving operational national/global capabilities; and in establishing self-sustaining arrangements. Moreover, regional arrangements take into account the different contexts, risks and challenges that regions face.

39. In her final remarks, Ambassador Almojuela highlighted the following points:

- Some proposals to be presented at the MX 1 may be in their exploratory phase and will take some time to discuss, while others may be riper and ready for development; the UNSG paper cited ripeness of opportunities, particularly in global health.
- It is important to achieve balance in the progress of implementation of BWC articles, and that outcomes from the MXs reflect this balance

40. At the end of the intersessional process, States Parties should have clear and well-developed deliverables for consideration in the 9th Review Conference that all States Parties can support.

Annex II

Programme

08:30- 09:00 Workshop registration

Session I: Assistance and cooperation under the BWC

Moderator: Hana Cervenka, First Secretary, Permanent Mission of Norway in Geneva

09:00 - 09:15 Workshop Opening (Trude Skjerve Johnson, Senior Adviser, Ministry of Foreign Affairs, Norway)

09:15 - 09:45 The evolution of Article X of the BWC (James Revill, Research Fellow, University of Sussex)

09:45 - 10:15 The Biological Weapons Convention and Article X implementation: An introductory overview (Daniel Feakes, Chief BWC ISU)

10:15 - 10:45 Coffee break

Session II: Building capacities at the national, regional and global level

Moderator: Ngoc Phuong van der Blij, Political Affairs Officer, BWC ISU

10:45 – 11:15 Harnessing frontier technologies for sustainable development (Angel González Sanz, Chief, Science, Technology and ICT Branch, Division on Technology and Logistics, UNCTAD)

11:15 – 11:45 Role and Importance of education and awareness in the implementation of the Biological Weapons Convention: Moroccan Experience (Fatima Lamchouri, Professor at the Polydisciplinary Faculty of Taza, Sidi Mohamed Ben Abdellah University of Fez, Morocco)

11:45 – 12:15 Developing human resources in biological sciences and technology related to implementation of the BWC (Jean Pascal Zanders, Chairman, Advisory Board on Education and Outreach, OPCW)

12:15 – 13:15 Lunch

Session III: International collaboration at the health-security interface

Moderator: Trude Skjerve Johnson, Senior Adviser, Ministry of Foreign Affairs, Norway

13:15 - 14:15 Promotion of capacity building, through international cooperation, in biosafety and biosecurity to enhance preparedness and response capacities to outbreaks of infectious disease or biological weapons attacks (Arne Broch Brantsaeter, Senior Consultant, Norwegian National Unit for CBRNE Medicine, Oslo University Hospital, and Anna Agnieszka, Norwegian Defence Research Establishment)

14:15 - 14:45 Building innovative partnerships between public, private, philanthropic and civil organisations to enhance epidemic preparedness (Gro Anett Nicolaysen, Resource Mobilisation Lead, CEPI)

14:45 - 15:15	An Innovative Partnership for Pandemic Preparedness (Anne Huvos, Manager, WHO PIP Framework Secretariat, WHO)

Session IV: Challenges and opportunities for international cooperation and assistance

Moderator: Hermann Alex Lampalzer, Political Affairs Officer, BWC ISU

15:15 - 15:45	the International Centre for Genetic Engineering and Biotechnology: at the intersection between research and cooperation (Alessandro Marcello, Group Leader, Molecular Virology, ICGEB) – via skype
15:45 - 16:15	Biotechnology in developing countries (Li Yin, DDG of the international cooperation department of the Chinese Academy of Sciences)
16:15 - 16:45	Coffee break

Session V: Considerations for the way ahead

Moderator: Daniel Feakes, Chief BWC ISU

16:45 - 17:00	General comments from participants
17:00 - 17:15	Strengthening cooperation and assistance under Article X (Maria Teresa Almojuela, Ambassador of the Philippines, and Chairperson of the Meeting of Experts 1)
17:15- 17:30	Workshop Closure
17:30 - 19:30	Cocktail dinatoire hosted by Norway